

REMARKS

This application has been reviewed in light of the Office Action dated September 20, 2004. In view of the foregoing amendments and the following remarks, favorable reconsideration and withdrawal of the rejections set forth in the Office Action are respectfully requested.

Claims 1-18 are pending. Claims 8, 15 and 17 have been amended. Support for the claim changes can be found in the original disclosure, and therefore no new matter has been added. Claims 1, 8 and 15-18 are in independent form

The Office Action Summary sheet acknowledges the claim for foreign priority, but does not indicate that the certified copy of the priority document has been received. However, it is noted that the foreign priority document was filed on February 20, 2002. Accordingly, acknowledgment of receipt of the foreign priority document is respectfully requested.

Claims 1-3, 8-10 and 15-18 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,560,575 (*Keiller*). Claims 4-7 and 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Keiller* in view of U.S. Patent No. 6,195,637 (*Ballard et al.*). Applicant respectfully traverses these rejections.

One of the features of the invention as set forth in independent Claim 1 is determination means for comparing a pattern of a recognized character string with a pattern of a recording character string (indicating a sentence to be recorded) stored in a storage means so as to obtain a matching rate therebetween, and for determining whether the matching rate exceeds a predetermined level. Each of independent Claims 8 and 15-18 recites a similar feature.

Applicant submits that, for at least the following reasons, *Keiller* does not suggest comparing a pattern of a recognized character string with a pattern of a recording character string indicating a sentence to be recorded.

According to the invention as claimed in Claim 1, a pattern of a recognized character string is compared with a pattern of a recording character string indicating a sentence to be recorded. An example of this is described in paragraphs [0030]-[0033] of the specification and illustrated in Fig. 3, as explained below.

At step 302, a recording sentence (a sentence to be recorded) in the speech list 213 is displayed to a user. At step 303, the user reads out the displayed sentence, and the user's utterance is input into a speech input unit. At step 304, the speech recognition unit performs speech recognition on the input speech (the user's utterance), yielding a recognition result. At step 305, the matching unit performs matching between the pattern of the recognition result and the pattern of the sentence that was displayed (presented) to the user. The recognition accuracy rate is determined. If that rate exceeds a predetermined threshold (step 306), then it is determined that the user's utterance is correct and the user's utterance (the input speech data) is recorded as learning data (step 308); if the rate does not exceed the threshold (step 306), then the errors are displayed to the user (step 307) and the user is instructed to read the displayed sentence again (repeat of step 303).

Keiller relates to a speech processing apparatus and method. According to *Keiller*, a user's first utterance is compared to a user's second utterance. The *Keiller* apparatus is for "checking the consistency between two training words" (Abstract). That is, the apparatus checks whether two training examples (user's utterances) are consistent, in order to generate a

word model (see col. 14, line 25 - col. 16, line 16).

Thus, according to Applicant's invention as claimed in Claim 1, the user's utterance is compared to a sentence to be recorded. In contrast, according to *Keiller*, a user's first utterance is compared to a user's second utterance. While the *Keiller* apparatus checks the consistency between two input utterances, the apparatus claimed in Claim 1 determines a matching rate between input speech and a pre-existing (e.g., already stored in the apparatus) sentence to be recorded.

Ballard et al. relates to marking and deferring correction of misrecognition errors. Specifically, according to this invention, a user may mark misrecognized words during dictation and defer correcting the misrecognized words until concluding dictation, so as to increase efficiency by avoiding interruptions of the dictation. After concluding the dictation, the user may invoke a correction tool to display and correct misrecognized words. Nothing in *Ballard et al.* is seen to compensate for the deficiencies of *Keiller* discussed above with respect to the independent claims.

In regard to the rejection of Claims 4-7 and 11-14, the Office Action concedes that "Keiller does not disclose a 'presentation step [that] presents the unmatched portion' along with reference word, and highlighting that portion either by changing background (claim 13) or making it blink (claim 14)." The Office Action states that "Keiller, however, discloses the three different types of possible errors that lead to mischaracterization of word sections: In addition, the examiner takes the official notice that recognition of words by phonetic units is extremely well-known in the art, so that it would have been obvious to one skilled in the art to identify only the specific word units (sections) exhibiting the incorrect behavior disclosed by

Keiller.” Finally, the Office Action states that “Ballard et al. teach displaying misrecognized words along with suggested correction . . . and highlighting/underlining the words marked for correction . . .”

However, Applicant submits that, as explained below, the proposed combination of the cited documents does not suggest all of the features of any of Claims 4-7 and 11-14. Applicant further submits that, as explained subsequently, the proposed combination is not permissible.

Specifically, in regard to *Keiller*, even if that document mentions different kinds of errors, as shown in Figs. 19b-e, nothing in *Keiller* is seen to suggest an apparatus or method that identifies which part of the input utterance (151, 153) has the error, or even which utterance (of 151 and 153) has the error. Rather, *Keiller* simply measures how consistent the two utterances are with each other. Accordingly, *Keiller* is not seen to suggest “presenting an unmatched portion . . . to a user as a result of performing DP matching . . .” such as is claimed in Claims 4 and 11.

In regard to the official notice taken by the Examiner, even if “recognition of words by phonetic units” be deemed to be well-known in the art, it is submitted that identification or recognition of an unmatched portion, such as is claimed in Claims 4-7 and 11-14, is not well-known in the art. In regard to the invention as set forth in those claims, it is understood that before a specific portion or phonetic unit of an utterance can be presented to the user (as unmatched), the determination of the mismatch of the specific portion must be made. Identification or recognition of a mismatched portion is distinct from recognizing a word (or portion of an utterance) by phonetic units.

In regard to *Ballard et al.*, that document also is not seen to suggest “presenting an unmatched portion . . . to a user as a result of performing DP matching . . .” such as is claimed in Claims 4 and 11. Specifically, according to *Ballard et al.*, it is the user who marks the misrecognized word; the apparatus does not present the misrecognized word to the user in the manner claimed.

Thus, Applicant submits that the proposed combination of *Keiller* and *Ballard et al.* would not lead one skilled in the art to Applicant’s invention as set forth in Claims 4-7 and 11-14.

Moreover, in view of this fundamental aspect of *Ballard et al.* (i.e., that identification of instances of misrecognition or mismatch is performed by the user, not the apparatus), it is seen that *Keiller* teaches away from *Ballard et al.*, and that combining *Ballard et al.* with *Keiller* would require changing of the principle of operation of *Keiller* and would render *Keiller* unsatisfactory for its intended purpose. Accordingly, it is submitted that the proposed combination of *Keiller* and *Ballard et al.* is impermissible.

Specifically, the *Keiller* apparatus measures the consistency between two training words uttered by the user in order to generate a word model. The *Keiller* apparatus does not and cannot rely on the user to identify an inconsistency or an inconsistent training word. Rather, the *Keiller* apparatus is designed to generate correct word models even in situations in which the user may unwittingly or unknowingly produce an erroneous utterance, such as accidentally breathing heavily in the microphone during the utterance (Fig. 19b), inputting the wrong word (Fig. 19c), or uttering the word at a time when there is a change in the background noise level (Fig. 19e). Thus, *Keiller* teaches away from any invention, such as *Ballard et al.*, in which it is the user, not

the apparatus, that identifies mismatches. In addition, modifying *Keiller* (which measures overall consistency between two utterances but does not identify the specific mismatched portions) with *Ballard et al.* (including the feature whereby the user determines and identifies the mismatched portions) would render *Keiller* unsatisfactory for its intended purpose. Even if its intended purpose could somehow be achieved, it would have to be by modifying its principle of operation.

Thus, Applicant submits that it is not permissible to combine *Keiller* and *Ballard et al.*

Since, as explained herein, the cited art does contain all of the elements of the independent claims, those claims are believed allowable over the cited art.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for at least (a) the same reasons as pertain to the independent claims and (b) the reasons set forth above pertaining to the dependent claims. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our Washington, D.C. office

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Respectfully submitted,



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